

Styles, F. G. & Wolf, L. L. 1979. The ecology and evolution of lek mating behaviour in the Longtailed Hermit hummingbird. *Am. Orn. Union Monogr.* 27.

Zimmer, J. T. 1950. Studies of Peruvian birds. No. 56. *Am. Mus. Novit.* 1450: 1-14.

Address: Barbara K. Snow, Old Forge, Wingrave, Aylesbury, Bucks, England.

©British Ornithologists' Club 1981.

Present abundance of the Warsangli Linnet *Acanthis johannis*

by J. S. Ash and J. E. Miskell

Received 6 May 1981

It seems likely that the present-day status of the elusive Warsangli Linnet *Acanthis johannis* has changed considerably from what it was in the recent past. In May 1979 we found it was one of the commonest small birds round Daloh (10° 45' N, 47° 15' E) in the mountains of northern Somalia, that is in one of the 2 earlier collecting sites; and in May 1980 we saw others at 2 new sites, namely Moon (11° 01' N, 48° 26' E) and Ragad (10° 59' N, 48° 31' E), close to the second earlier collecting site near Musha Aled (11° 00' N, 48° 19' E).

Archer & Godman (1961) reviewed the existing paucity of knowledge about the species (see also Clark 1919, Williams 1956), whose past occurrences and distribution can be summarised as follows:- "On the way up to Musha Aled" 1200 m, 8-9.ii.1919, flock of 25 seen, 1 ♂ collected on 9.ii.1919; Daloh 1800 m, 12-13.viii.1955, small flock, 1 ♀ collected 13.viii and 1 ♂ collected 22.x.55; [Bokh (10° 36' N, 47° 12' E) 1800 m, 1955, stated to occur]; and Tagair (10° 45' N, 47° 24' E) 1760 m, 27.vii.1957, 1 ♂ collected (USNM 487690).

A. R. Tribe who lived at Daloh for some time, and collected all the later specimens, saw more of these linnets in the area on other occasions at 1800-2100 m, and the specimen collected by him at Tagair suggests that there may be still other specimens unrecorded in the literature. Archer's collector was unable to find the birds in nearly 2 months search from March 1919, and neither R. Meinertzhagen in about 1950 nor J. G. Williams in 1954 could find it in the Warsangli country. We intended to look for the species on our journey in May 1979 from Erigavo (10° 38' N, 47° 22' E) to Mait (10° 58' N, 47° 05' E) through Daloh, but hardly expected to find it in the short time at our disposal, particularly in view of the infrequency of sightings in the 60 years since its discovery.

As we approached the Rest House in the Daloh Forest Reserve on 17 May we stopped to watch, as it flew up into a tree, the first Somali Blackbird *Turdus olivaceus ludoviciae* we had seen. Close beside it was a Warsangli Linnet. Within the next hour or two we saw many more of the former, and at least 15 of the linnets within 2 km of the Rest House. On the following morning we caught 19 linnets, all males, in 2 nets by small pools, and noted that the birds were very common. On 19 May at a brief halt in a gorge c.5 km to the WNW we saw 10 more males, but failed to see any others on the steep descent to the coastal plain. The wing-lengths of the captured birds ranged from 70-80 mm, mean 75.2 (S.D. ± 2.80) and the weights from 11.8-15.0 g, mean 13.4 (S.D. ± 0.78).

Daloh is situated in degraded Juniper *Juniperus procera* forest, with some olives and other mixed trees and shrubs, where there were many open areas

due to felling, damage by fire, and cattle-grazing. In places, however, there was a fairly dense under-storey, composed particularly of thickets of a shrubby species of *Salvia*. In spite of searching from dawn onwards, no linnets were seen on 18 May until 0730. Then suddenly they were everywhere, but all were males and no females were identified throughout our brief visit. We estimated that probably 100 males were seen within a radius of 2-3 km of the Rest House. The 19 captured in a few hours, of which none of the 15 ringed was recaptured, at only 2 of the many small pools in the area, supports our view that the species is fairly numerous. By 1300, all had disappeared and a wide search in mid-afternoon failed to trace any.

Gonadal development in 4 males (testes 5-6 mm long) indicated that they were in or near breeding condition, and song was frequently heard and display seen, in spite of the absence of females. In fact, because of their apparent absence, we suspect that they may have been incubating eggs in an area at some distance from Daloh, but no clue was obtained as to where this might have been. Furthermore, the males usually occurred singly, which is again suggestive of breeding, for both Clarke (1919) and Williams (1956) refer to flocks in February and August. A local forest-guard, who knew the birds well, and had worked for A. R. Tribe, claimed they nested in the hollows formed below branches on the trunks of Junipers, but this needs to be substantiated.

Song and call notes. The song was a patternless series of *Serinus*-like notes. The calls were variable, and were described as:- a Goldfinch *Carduelis carduelis*-like "tsee-wit", a Willow Warbler *Phylloscopus trochilus*-like "tweek", a twittering "sis-sis-sis", and a clear "sweet-ee". Most of the song was in the early morning.

Habits. Easily identified in flight as a small black and white bird with large white wing patches and a chestnut and whitish rump. They have a distinct preference for high exposed perches at the end of dead branches on trees, where, immediately on alighting, they strenuously wipe their bills. Unlike Tribe (Williams 1956) we did not find them very shy and alert, nor extremely difficult to approach.

Food. One bird was watched feeding on low grass seeds, taken from the plant, but all others seen feeding were eating the green seeds of the *Salvia* from places where the flower-head had just been shed. This attachment to green seeds was borne out by the considerable amount of green discoloration round the bills of captured birds, and probably also accounted for the frequent bill-wiping.

Display. One male on a branch approached another with bill raised in the air with fluttering (or trembling) wings extended downwards. Both soon flew off to engage in aerial pursuit and much bickering in which a third bird joined in.

Associated species. No close association was noticed with any other species present. Characteristic birds of the same habitat included:- Somali Blackbird, very common (nests found with eggs and nestlings); Little Rock-Thrush *Monticola rufocinerea*, common; White-breasted White-eye *Zosterops abyssinica socotrana*, common; Ring-necked Dove *Streptopelia capicola*, fairly common; Red-eyed Dove *S. semitorquata*, fairly common; Olive Pigeon *Columba arquatrix*, common; Brown-rumped Seedeater *Serinus tristriatus*, very common; Red-fronted Tinkerbird *Pogoniulus pusillus*, common; Brown Woodland Warbler *Phylloscopus umbrovirens*, common; Paradise Flycatcher

Tchitrea viridis, common; Somali Chestnut-winged Starling *Onychognathus blythii*, common; Black-headed Bush-Shrike *Tchagra senegala*, fairly common; Richard's Pipit *Anthus novaezeelandiae*, very common; Long-billed Pipit *A. similis*, fairly common; Grey-backed Camaroptera *Camaroptera brevicaudata*, common.

In May 1980 our time in the mountains was even shorter. On 10 May we travelled south from Los Khoreh (11° 09'N, 48° 12'E) on the coast and spent the afternoon, night, and following morning at Musha Aled (1300 m). On 11 May we travelled eastwards through Hawash Awal (11° 00'N, 48° 19'E) to Moon 19 km away and Merce (11° 00'N, 48° 24'E) at 27 km, thence to the end of the track at 31 km at Ragad. Three linnets were seen at Moon, and another at Ragad. We then returned to Hawash Awal and ascended the track for 9 km to camp at the highest point at 1800 m. No other linnets were seen, and no clues obtained as to their breeding area. The bird seen at Ragad at midday came up from a sheer cliff face, but a careful search of several other cliffs the following day failed to reveal any more individuals. The area around Musha Aled and Ragad is devoid of Juniper forest, although it may well have been forested in the recent past. Towards Ragad there were a few small Junipers, and a few taller trees amongst the scrub, particularly *Ficus* sp. in the gulleys.

Daloh is some 120 km west of Musha Aled and from local accounts we gathered that the intervening country consists of much suitable habitat for this escarpment-edge species, and similar habitat probably continues for at least a further 100 km eastwards. Thus we expect the range of *A. jobannis* may extend along 200-250 km of the Somalia highlands, but only over a very narrow strip a few kilometres wide between 1200 and 2400 m. The present observations suggest its numbers may have increased in recent years and it is clearly no longer the "exceedingly rare bird" referred to by Archer & Godman. Forest destruction could be a contributory factor actually favouring the species, since it opens up denser stands of relatively close canopy forest. Much further investigation is needed to establish the whole distribution, status and breeding habitats of this linnets, but the known area is difficult of access and still virtually unknown ornithologically.

We did not see any of these linnets in the mountains east of Bosaso (11° 17'N, 49° 11'E), but the mountains are very bare and arid, and apparently do not have any suitable habitat. To the west a road is under construction which will open up the rugged terrain east of Ragad, and will make areas of Juniper forest more easily accessible.

Acknowledgements: We thank Mr. Ali Murshid for all his help on our visit to Daloh in 1979.

References:

- Archer, G. & Godman, E. M. 1961. *The Birds of British Somaliland and the Gulf of Aden*. Gurney & Jackson: London.
 Clarke, S. R. 1919. Description of a new genus *Warsanglia* and five new forms from Somaliland. *Bull. Brit. Orn. Cl.* 40: 48-50.
 Williams, J. G. 1956. The re-discovery of *Warsanglia jobannis*. *Ibis* 98: 531-532.

Addresses: Dr. J. S. Ash, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, U.S.A.

J. E. Miskell, 11 Second Street, Geneseo, N.Y. 14454, U.S.A.